TITLE: Study of DAC 0808

1. Positive Ramp

org 0000H

sjmp begin

begin:

mov a,#00h ;LOADING VALUE 00H IN ACCUMULATOR

up:mov p1,a ;LOADING VALUE OF A IN PORT 1

inc a ;INCREMENTING VALUE OF A

cjne a,#0ffh,up

sjmp begin

1. Negative Ramp

org 0000H

sjmp begin

begin:

mov a,#0ffh ;LOADING VALUE FFH IN ACCUMULATOR

up:mov p1,a ;LOADING VALUE OF A IN PORT 1

dec a ;DECREMENT VALUE OF A TILL IT BECOMES 00H

cjne a,#00h,up

sjmp begin

1. Square Wave

org 0000h

sjmp begin

delay: mov r5,#09Fh ;FOR DELAY OF 09FH IN THE WAVEFORM

d1: djnz r5,d1

ret

begin:

mov a,#0FFh ;MOVING FFH IN ACCUMULATOR

mov P1,a ;MOVING A IN PORT 1

lcall delay ;CALLING DELAY

mov a,#00h ;MOVING 00H IN ACCUMULATOR

mov P1,a

lcall delay

sjmp begin

1. Trapezoidal Wave

org 0000H

sjmp begin

begin:

;POSITIVE RAMP

mov a,#00h ;MOVING 00H IN ACCUMULATOR

up1:mov p1,a ;MOVING VALUE OF A IN PORT 1

inc a ;INCREMENTING A TILL IT BECOMES FFH

cjne a,#0ffh,up1

mov p1,#0ffh

up2: dec a ;DELAY IN WAVEFORM BY DECREMENTING A FROM FFH TO 00H

cjne a,#00h,up2

mov a,#0ffh ;NEGATIVE RAMP

up3:mov p1,a

dec a

cjne a,#00h,up3

mov a,#0ffh

mov p1,#00H

up4: dec a ;DELAY IN WAVEFORM

cjne a,#00h,up4

sjmp begin

1. Triangular Wave

org 0000h

mov a,#00h

Begin: ;POSITIVE RAMP

mov p1,a

inc a

cjne a,#0ffh,Begin

next: ;NEGATIVE RAMP

dec a

mov p1,a

cjne a,#00h,next

sjmp Begin

1. Temple Wave

ORG 0000H

SJMP BEGIN

DELAY:MOV R5,#0FFH ;LABEL DEFINED FOR DELAY IN WAVEFORM

D1: DJNZ R5,D1

RET

BEGIN:

MOV A,#000H

MOV P1,A

LCALL DELAY ;DELAY AT 00H OR 0V

MOV A,#07FH ;MOVING AN INTERMEDIATE VALUE 07FH IN A

MOV P1,A

LCALL DELAY ;DELAY AT 07FH

UP: ;POSITIVE RAMP

MOV P1,A

INC A

CJNE A,#0FFH,UP

DOWN: ;NEGATIVE RAMP

MOV P1,A

DEC A

CJNE A,#07FH,DOWN

MOV P1,A

LCALL DELAY ;DELAY AT 07FH

MOV A,#00H

MOV P1,A

LCALL DELAY ;DELAY AT 00H

SJMP BEGIN